

Remarks/Arguments

Claims 1, 3-42, 44-50 and 52 are pending in the above-captioned application. Independent claim 50 has been amended herein to recite that the claimed nanowire pixel transistor comprises at least two or more non-nanotube nanowires. Support for this Amendment can be found throughout the specification of the instant application, and thus no new matter is entered.

I. **Double Patenting Rejection**

Claims 1, 3-42, 44-50 and 52 were provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 173, 175-22, 224, 225, 227-243 and 245 of copending application No. 10/674,060. Without acquiescing in the Examiner's grounds of rejection, and in order to expedite the prosecution of this application to allowance and issuance, Applicants submit herewith an appropriate Terminal Disclaimer to obviate this rejection.

II. **Rejection Under 35 U.S.C. §103(a)**

Claims 1, 3-42, 44-50, and 52 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Koyama et al. (US Pub 20020024489) ("Koyama") and Avouris et al. (U.S. Pub. 20040061422) ("Avouris").

Initially, Applicants do not concede that Avouris is properly prior art to the Applicants' claimed inventions. Applicants reserve the right to establish invention dates for the claimed inventions that are on or before the effective 35 U.S.C.

§102(e)/103(a) date of Avouris relied on in the Office Action.

Independent claim 1 recites:

"An active matrix backplane used within a display, comprising:

a plurality of pixels; and

a plurality of pixel transistors, wherein a pixel transistor within said plurality of pixel transistors controls a corresponding pixel within said plurality of pixels, wherein each pixel transistor within said plurality of pixel transistors is a nanowire

transistor comprising a plurality of nanowires extending between a first source electrode and a first drain electrode of the transistor.” (Emphasis added)

Koyama does not disclose the use of nanowire transistors at all as claimed in Applicants' claimed inventions of claims 1, 27, 50 and 52. Additionally, it is not seen where in Avouris is there a disclosure or suggestion of nanowire transistors which control -- e.g., turn on and off by controlling the voltage or current applied to -- one or more corresponding pixels of an active matrix backplane or LCD display as required by independent claims 1, 27, 50 and 52, nor is there disclosure of a nanowire pixel transistor comprising a plurality of non-nanotube nanowires as recited in amended independent claim 50. Avouris discloses a light emitting device that includes a carbon nanotube or a boron-nitride nanotube (e.g., paragraphs [0014], [0031] and [0032]). The carbon nanotube (or boron-nitride nanotube) includes an n-type portion and a p-type portion forming a p-n junction within the nanotube. When a voltage is applied to the gate electrode of the device, and between the source region (e.g., cathode) and the drain region (e.g., anode) of the device, electrons (from the source region) and holes (from the drain region) recombine at the p-n junction to generate light of a desired wavelength to cause optical emission from the channel. The light emitting device disclosed in Avouris is not used to control (e.g., turn on and off) external circuitry (e.g., pixels of an active matrix backplane or LCD display) as required by independent claims 1, 27 50 and 52. It is further noted that Avouris does not suggest the use of non-nanotube nanowires (e.g., see claim 50). Thus, it would not be obvious to combine Avouris with Koyama since such combination would not yield a functional display device based on nanowire transistors that are used to control the voltage or current applied across pixels containing, e.g., liquid crystals.

Accordingly, it is believed that the rejection has been overcome, and it is respectfully requested that the rejection of claims 1, 27, 50 and 52 be withdrawn. Claims 3-26 depend from claim 1, and claims 28-42 and 44-49 depend from claim 27, and are

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believed to be allowable for at least these reasons. It is thus respectfully requested that the rejection of claims 3-26, 28-42 and 44-49 be withdrawn as well.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Andrew L. Filler", with a stylized flourish at the end.

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